California Regional Water Quality Control Board
Lahontan Region

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Arnold Schwarzenegger
Governor

June 19, 2007

TO: ATTACHED MAILING LIST

WDID NO. 6B150112001

TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS FOR ROSAMOND COMMUNITY SERVICES DISTRICT; DOMESTIC WASTEWATER TREATMENT PLANT, KERN COUNTY

Enclosed are tentative Waste Discharge Requirements (WDRs) for the above subject.

The California Regional Water Quality Control Board requests that you review the enclosed documents and provide us with your written comments no later than **July 18, 2007**. Comments received after that date cannot be given full consideration in preparation of the recommended Board Order to be presented to the Regional Board for adoption at the meeting scheduled for August 29 and 30 in Lancaster, California.

If you need further information regarding the WDRs, please contact our office.

Sincerely,

Rebecca Phillips
Office Technician

Enclosures: Tentative Board Order
Comment form

cc: Attached Mailing List

Notice

Submittal of Written Material for Regional Board Consideration

In order to ensure that the State of California Lahontan Regional Water Quality Control Board has the opportunity to fully study and consider written material, it is necessary to submit it at least ten (10) days before the Regional Board Meeting. Pursuant to Title 23 of the California Code of Regulations, Section 648.2, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Regional Board may refuse to admit it.

COMPLETE FORM AND RETURN

To: CA Regional Water Quality Control Board, Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392
ATTN: CURT SHIFRER

Comments on WDRs for ROSAMOND COMMUNITY SERVICES DISTRICT

_____We concur with proposed requirements

_____We concur; comments attached

_____We do not concur; comments attached

_____(Sign)

_____(Type or print name)

_____(Organization)

_____(Address)

_____(City and State)

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER R6V-2007-(TENTATIVE)
WDID 6B150112001

REVISED WASTE DISCHARGE REQUIREMENTS

FOR
ROSAMOND COMMUNITY SERVICES DISTRICT
DOMESTIC WASTEWATER TREATMENT PLANT

Kern County

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) finds:

1. Discharger

The Rosamond Community Services District (Discharger) submitted information to the Lahontan Water Board as part of a Report of Waste Discharge for revised Waste Discharge Requirements under Water Code section 13260. The Discharger completed its application on June 8, 2007. The documents that constitute the complete application are listed in Attachment C (References).

2. Order History

The Lahontan Water Board initially established Waste Discharge Requirements for the Discharger under Resolution 66-17 (adopted on October 27, 1966) for discharge of untreated wastewater to four oxidation/evaporation ponds. The Board subsequently revised Waste Discharge Requirements six times through Board Orders adopted on the following dates: November 15, 1973; March 13, 1984; October 12, 1984; March 12, 1987; January 11, 1990 and September 14, 1995.

On September 14, 1995, the Board adopted Board Order 6-95-107 revising Waste Discharge Requirements. The Board subsequently amended that Order twice through Board Order 6-95-107A1 adopted on July 11, 1996 and Board Order 6-95-107A2 adopted on May 10, 2000. Both amendments were for including additional oxidation/evaporation ponds.

3. Reason for Action

The Lahontan Water Board is revising Waste Discharge Requirements to establish requirements for the Discharger's proposal to upgrade the level of treatment by constructing a tertiary treatment plant at its existing wastewater treatment/disposal site. The proposed treatment plant will include nitrogen removal. Currently untreated wastewater is discharged to existing oxidation/evaporation ponds located at the site. A portion of the untreated wastewater currently discharged to the existing ponds will be diverted to the tertiary treatment plant for treatment. Tertiary-

treated wastewater generated by the plant will be discharged to the existing ponds. By early 2009, the Discharger expects to complete construction of the initial 0.5 mgd tertiary treatment plant and submit an application to the Board requesting issuance of Water Recycling Requirements that would allow recycling of treated wastewater generated by the proposed plant. Issuance of Waste Discharge Requirements is a condition for a State Revolving Fund loan to construct the treatment plant.

4. Facilities Locations

The wastewater treatment/disposal site shown in Attachment B is located in the southeastern area of Rosamond, approximately one mile east of Highway 14 in the Lancaster Hydrologic Area of the Antelope Hydrologic Unit as shown in Attachment A, which is made a part of this Order. The address for the office at the site is 875 Patterson Road, Rosamond, California 93560.

5. Land Ownership

The treatment plant site is located on land owned by the Discharger.

6. Description of Facilities

a. Existing Facilities

The Discharger collects approximately 1.3 mgd of untreated domestic wastewater (including less than 1,000 gallons per day of septage) from the community of Rosamond. The wastewater is conveyed to the wastewater treatment/disposal site by a gravity interceptor sewer for treatment and disposal. An influent pump station lifts the wastewater a height of 50 feet to a preliminary treatment facility (bar screen). Wastewater then flows to an oxidation/evaporation pond aerated by five mechanical aerators. Effluent from this pond is distributed to 16 adjacent oxidation/evaporation ponds. The total area of the 17 oxidation/evaporation ponds is approximately 160 acres. The total area of the treatment/disposal site is 220 acres. Discharge of untreated wastewater to ponds located at the site began in the 1950s. The above existing facilities (including the interceptor sewer) are capable of conveying and disposing of an average influent flow of 2.0 mgd. The Discharger currently does not accept septage for treatment at the site.

b. Proposed Tertiary Treatment Plant

The Discharger proposes to initially construct a tertiary treatment plant with a capacity to treat 0.5 million gallons per day (mgd) of wastewater and later expand the plant capacity to 1.0 mgd. The proposed treatment plant will be constructed in a 12-acre area located within the existing wastewater treatment/disposal site. The existing influent pump station will be modified so it can convey wastewater to the proposed treatment plant.

The plant will include the following wastewater treatment components:

i. Headworks,
ii. Activated sludge basin with nitrogen removal (nitrification and denitrification),
iii. Secondary clarifier, and
iv. Ultraviolet disinfection.

Sludge removed by the clarifier will either be returned to the activated sludge basin or conveyed to six surface impoundments for drying. The total area of for the six surface impoundments is approximately one acre. Interior surfaces of impoundment dikes will be lined with reinforced concrete with a minimum thickness of six inches. The bottom of the surface impoundments will be underlain by 1.5 feet of compacted low-permeability soils obtained from the treatment/disposal site.

c. Solids Handling

Solids removed from the bar screen are hauled offsite for disposal at an authorized disposal site. Dried solids generated from cleaning of the proposed sludge drying beds and existing oxidation/evaporation ponds will be hauled offsite for disposal/reuse at an authorized reuse or disposal site. Disposal of solids at the treatment/disposal site is not authorized.

7. Effluent Quality

Table 1 summarizes expected concentrations in the effluent generated by the proposed tertiary treatment plant. With the exception of total dissolved solids (TDS), the expected concentrations are based on design data for the plant. TDS concentrations are based on results of sampling for the untreated wastewater discharged to the existing oxidation/evaporation ponds. Disinfection by-products are not expected to be present in the effluent, because ultraviolet light will be used to disinfect the effluent.

Effluent produced by the proposed tertiary treatment plant must meet specific performance standards, including requirements in California Code of Regulations, title 22 (Water Recycling Criteria) for disinfected tertiary-treated wastewater. Applicable effluent limits from the Water Recycling Criteria have been included in this Order. The attached Monitoring and Reporting Program requires monitoring for compliance with the effluent limits.

Table 1
Expected Concentrations in Effluent for
Proposed Tertiary Treatment Plant

Constituents	Concentration
Total Coliform (MPN/100 ml)	Less than 2.2
Turbidity (NTUs)	2
Biochemical Oxygen Demand (mg/L)	5
Total Dissolved Solids (mg/L)	600[1]
Total Nitrogen (mg/L as N)	Less than 10
Footnote: 1. Based on results of analyses of influent wastewater samples reported by the Discharger in self monitoring reports.	

8. Authorized Disposal/Recycling Sites

This Order authorizes:

a. Discharge of untreated wastewater and disinfected tertiary-treated wastewater to the existing 17 oxidation/evaporation ponds, and

b. Use of treated wastewater for non-potable uses within the existing wastewater treatment/disposal site, including use for landscape irrigation, facility washdown and soil compaction and dust control during construction of new facilities.

9. Topography

The natural ground-surface in the area of the treatment plant site slopes in an easterly direction toward Rosamond Dry Lakebed at a gradient of approximately 0.005 feet/foot. The Dry Lakebed is located approximately 2.5 miles east of the site.

10. Geology

The geologic material underlying the treatment plant site consists of alluvium followed by bedrock. U.S. Department of Agriculture (Soil Conservation Service) investigation results show alluvium at the site, located between the ground surface and a depth of five feet, contains soluble salts (USDA, 1970, Jan).

11. Hydrogeology

Data for existing monitoring wells located at the treatment plant site indicate the depth to groundwater at the site ranges from 65 to 80 feet and the direction of groundwater flow is toward the northwest.

12. Groundwater (Background Quality)

Table 2 summarizes data on background quality of groundwater in the area of the treatment plant site. The data was collected by the California Department of Water Resources and published in a report titled: *Groundwater and Wastewater Quality Study, Antelope Valley, Los Angeles and Kern Counties*, March 1968 (*CDWR, 1968*).

13. Groundwater (Existing Quality)

Table 2 summarizes both the existing and background quality of groundwater for the treatment plant site. Comparison of the existing quality to background quality in Table 2 indicates total dissolved solids (TDS) and nitrate concentrations in groundwater underlying the ponds have increased over time to levels above background quality. Historical discharges of wastewater to the existing pond site appear to have either caused or contributed to degradation of groundwater underlying the ponds. Table 2 shows that TDS and nitrate concentrations in the discharge to the ponds are less than existing concentrations in underlying groundwater. Evaporation of moisture from wastewater in the ponds, however, causes TDS concentrations in the wastewater to increase. TDS concentrations also increase as soluble salts in the vadose zone underlying the ponds dissolve into wastewater as it percolates through the alluvium.

Table 2
Quality of Groundwater and Influent Wastewater

	Year	Total Dissolved Solids (mg/L)	N (No. of Samples)	Total Nitrogen (mg/L as N)	N (No of Samples)
Background quality (groundwater within 3.0 miles of pond site)[1]	1953 - 1968	200 to 570	14	Non-detect to 1.6	20
Background quality (groundwater underlying pond site)[1]	1953 - 1968	290 to 390	3	Non-detect to 0.7	6
Existing quality (groundwater underlying pond site)[2]	2003 - 2005	660 to 2700	9	2.4 to 5.4	12
Existing quality (wastewater discharges to ponds)[3]	2003 - 2005	590 to 610	3	40 to 50	3

Footnotes:
1. Water-wells sampling results from report titled: *Groundwater and Wastewater Quality Study, Antelope Valley, Los Angeles and Kern Counties*, California Department of Water Resources, March 1968.
2. Results are for samples collected from four groundwater monitoring wells located at the pond site. Results were reported by the Discharger in self monitoring reports.
3. Results of analyses of samples reported by the Discharger in self monitoring reports.

14. Receiving Waters

The receiving waters at the treatment plant site are the groundwaters of the Antelope Valley Groundwater Basin.

15. Lahontan Basin Plan

The Lahontan Water Board adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which became effective on March 31, 1995, and this Order implements the Basin Plan as amended.

16. Beneficial Uses

The beneficial uses of the groundwaters of the Antelope Valley Groundwater Basin as set forth and defined in the Basin Plan are:

a. Municipal and Domestic Supply (MUN);
b. Agricultural Supply (AGR);
c. Industrial Service Supply (IND); and
d. Freshwater Replenishment (FRSH).

17. Consideration of Water Code Section 13241 Factors

Section 13263 of the Water Code requires that the Lahontan Water Board, when prescribing Waste Discharge Requirements, take into consideration five specific factors in Section 13241 of the Water Code. The Board has considered these factors as follows.

a. Past, Present, and Probable Future Beneficial Uses of Water

The receiving waters are the groundwaters of the Antelope Valley Groundwater Basin. The ground water basin is presently in an overdraft condition. The beneficial uses of the groundwater include Municipal and Domestic Supply and Agriculture Supply. The receiving water limits in this Order are to maintain the most sensitive beneficial uses, Municipal and Domestic Supply and Agricultural Supply.

b. Environmental Characteristics of the Hydrographic Unit under Consideration, Including the Quality of Water Available Thereto

The hydrographic unit for the receiving waters is the Antelope Groundwater Basin. Hydrogeologic characteristics of the Basin are described in Findings 12. Because of past ongoing use of groundwater for domestic and agricultural purposes, the ground water basin is presently in an overdraft condition. In general, the quality of groundwater in the basin is sufficient to support the beneficial uses MUN and AGR.

As discussed in Finding 13, data indicates degradation of groundwater underlying the ponds. The Lahontan Water Board Executive Officer has requested the Discharger: (a) conduct an investigation to determine the affects of historical and proposed discharges of wastewater from the ponds to the quality of underlying groundwater, and (b) complete a degradation analysis for the effects of these discharges.

c. Water Quality Conditions That Could Reasonably be Achieved Through the Coordinated Control of All Factors, Which Affect Water Quality in the Area

The current and future beneficial uses and existing water quality in the area will be maintained.

d. Economic Considerations

Facilities regulated under this Order are for upgrading the Discharger's existing facilities. The costs for upgrading are reasonable.

e. The Need for Developing Housing within the Region

The proposed tertiary treatment plant will indirectly enhance the development of housing in the region by helping to ensure sufficient water availability in the region. By early 2009, the Discharger expects to submit an application to the Board requesting issuance of Water Recycling Requirements that would allow recycling of treated wastewater generated by the proposed plant. Recycling of treated wastewater will help offset a limited supply of fresh water in the Valley.

f. The Need to Develop and Use Treated Wastewater

The Discharger's current oxidation/evaporation ponds produces an effluent for only limited reuses described in California Code of Regulations, title 22. The proposed treatment plant will upgrade the level of treatment and produce an effluent that is acceptable for all uses described in California Code of Regulations, title 22. This will maximize the potential for reuse. The Discharger and other governmental entities located in the Antelope Valley are part of a preliminary plan for distributing tertiary-treated wastewater to various sites in the Valley for recycling. Treatment plants identified as sources of tertiary-treated wastewater consist of the proposed plant regulated under this Order and those planned for Lancaster and Palmdale, which are regulated under separate Orders (*LAWWD40, 2005*).

18. California Environmental Quality Act (CEQA)

On September 28, 1999, the Discharger adopted a Negative Declaration in compliance with the CEQA for the proposed project regulated under these waste

discharge requirements. The project consists of upgrading the level of treatment through construction of a tertiary treatment plant at the Discharger's existing treatment/disposal site. The project will not have an adverse affect on water quality.

19. Technical and Monitoring Reports

The fact that the Discharger is seeking coverage under waste discharge requirements issued by the Lahontan Water Board for one or more proposed discharges supports the requirement that the Discharger submit technical and monitoring reports in compliance with this Order and the attached Monitoring and Reporting Program so that the data may be collected to determine conditions in the receiving water.

20. Notification of Interested Parties

The Lahontan Water Board has notified the Discharger and interested persons of its intent to revise Waste Discharge Requirements for the discharge.

21. Consideration of Public Comments

The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger must comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. The untreated wastewater flow to the initial tertiary treatment plant during a 24-hour period must not exceed 0.5 million gallons.

2. The untreated wastewater flow to the subsequent expanded tertiary treatment plant during a 24-hour period must not exceed 1.0 million gallons.

3. The flow of both untreated wastewater and tertiary-treated wastewater to the oxidation/evaporation ponds during a 24-hour period must not exceed 2.0 million gallons.

4. The effluent produced by the tertiary treatment plant must not exceed the following limits:

Parameter	Units	30 Day Mean	7 Day Mean	Daily Maximum
BOD	mg/L	10	15	30

5. The effluent produced by the tertiary treatment plant must have a pH of not less than 6.0 nor more than 9.0. A pH over 9.0 is allowed if the Discharger has demonstrated it results from biological processes within the treatment plant.

6. The effluent produced by the tertiary treatment plant must have a dissolved oxygen concentration of not less than 1.0 mg/L.

B. Receiving Water Limitations

The discharge must not cause a violation of the following water quality objectives for the groundwaters of the Lancaster Hydrologic Area of the Antelope Hydrologic Unit.

1. Bacteria - Groundwaters must not contain concentrations of coliform organisms attributable to human wastes.

2. Chemical Constituents - Groundwaters must not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (Secondary MCL) based upon drinking water standards specified in the following provisions of California Code of Regulations, title 22: Table 64431-A of section 64431 (Inorganic Chemicals), Table 6444-A of section 64444 (Organic Chemicals), Table 64433.2-B of section 64433.2 (Fluoride), Table 64449-A of section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

3. Radioactivity - Radionuclides must not be present in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food chain to an extent that it presents a hazard to human, plant, animal, or aquatic life. Waters must not contain concentrations of radionuclides in excess of limits specified in the California Code of Regulations, title 22, chapter 15, article 5, section 64443.

4. Taste and Odors - Groundwaters must not contain taste or odor-producing substances in concentrations that cause nuisance (California Water Code section 13050(m)) or that adversely affect waters for beneficial uses.

5. Nitrate and total dissolved solids (Sludge drying beds) – Drying of sludge at the proposed sludge drying beds must not cause:

(ii) A nitrate concentration (12-month average concentration) in excess of existing water quality in the groundwater compliance monitoring well (The existing quality must be equal to the upper 99% confidence interval for the first eight nitrate samples collected from the well.); or

(iii) A total dissolved solids concentration (12-month average concentration) in excess of existing water quality in the groundwater compliance monitoring well (The existing quality must be equal to the upper 99% confidence interval for the first eight total dissolved solids samples collected from the well.)

C. Water Recycling Requirements

1. The effluent produced by the tertiary treatment plant must comply with the Uniform Statewide Reclamation Criteria, which are contained in California Code of Regulations, title 22, sections 60301 through 60355.

2. The effluent produced by the tertiary treatment plant must be disinfected tertiary treated wastewater as defined in California Code of Regulations, title 22.

3. The effluent produced by the tertiary treatment plant must be an oxidized wastewater and a wastewater that has been filtered by the method described in either a. or b., below.

   a. The effluent has been coagulated and passed through natural undisturbed soils or the bed of a filter and the turbidity concentration of the effluent does not exceed any of the following:
      (i) A 24-hour average value of two (2) nephelometric turbidity units (2 NTUs);
      (ii) Five (5) NTUs more than 5% of the time during a 24-hour period; and
      (iii) 10 NTUs at any time.

   b. The effluent has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:
      (i) 0.2 NTU more than 5 percent of the time within a 24-hour period; and
      (ii) 0.5 NTU at any time.

4. The effluent produced by the tertiary treatment plant must be a filtered and subsequently disinfected wastewater that meets the following:

   a. Disinfected by an ultraviolet disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as poliovirus may be used for purposes of the demonstration.

   b. The median concentration of total coliform bacteria measured in the filtered and disinfected effluent produced by the treatment plant must not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria must not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample must exceed an MPN of 240 total coliform bacteria per 100 milliliters.

D. General Requirements and Prohibitions

1. There must be no discharge, bypass, or diversion of untreated or treated wastewater, sludge, grease, or oils from the transport, treatment, or Authorized Disposal/Recycling Sites (described in Finding 8) to adjacent land areas or surface waters.

2. Surface flow, or visible discharge of untreated or treated wastewater, from the Authorized Disposal/Recycling Sites (described in Finding 8) to adjacent land areas or surface waters is prohibited.

3. All facilities used for collection, transport, treatment, or disposal of waste regulated by this Order must be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

4. The discharge must not cause a pollution, as defined in California Water Code section 13050, subdivision (l), or a threatened pollution.

5. Neither the treatment nor the discharge must cause a nuisance, as defined in California Water Code section 13050, subdivision (m).

7. The disposal of waste residue, including sludge, must be in a manner in compliance with all local, state, and federal requirements.

8. Treated wastewater used for dust control or soil compaction must be applied at a rate and amount that does not cause runoff or excessive ponding.

9. The proposed tertiary treatment plant must be designed and operated as described in the findings of this Order and the Discharger's application referenced in Finding 1.

10. The tertiary treatment plant must be maintained at maximum operating efficiency in compliance with this Order.

11. The discharge of waste, as defined in the California Water Code, which causes violation of any narrative Water Quality Objective contained in the Basin Plan, including the Non-Degradation Objective, is prohibited.

12. The discharge of waste, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.

II. PROVISIONS

A. Waste Discharge Requirements

1. Board Orders 6-95-107, 6-95-107A1 and 6-95-107A2 are hereby rescinded.

B. Groundwater Monitoring System

1. Additional Groundwater Compliance Monitoring Well

Pursuant to the California Water Code, section 13267, the Discharger must submit to the Lahontan Water Board by **January 4, 2008** a workplan for establishing a minimum of one groundwater compliance monitoring well located adjacent to the proposed drying beds. Before beginning discharge of sludge to the drying beds, the Discharger must complete installation of the monitoring well in accordance with an approved workplan and complete a minimum of eight total dissolved solids and nitrate sampling rounds for the well and then calculate the existing water quality at well as specified in Discharge Specification I.B.5. The results of the calculations and data used to make the calculations must be included in the quarter self monitoring following the quarter the samples were collected. A State of California, Well Completion Report Form must be completed for the well included in the quarter self monitoring following the quarter the well is installed. A copy of the completed form must be provided to the California Department of Water Resources as required by California Water Code section 13751 and County of Kern, which permits and enforces its local water well standards.

C. Operator Certificates

The Facility must be supervised by persons possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to California Code of Regulations, title 23, section 3670 et seq.

D. Standard Provisions

The Discharger must comply with the "Standard Provisions for Waste Discharge Requirements," dated September 1, 1994, in Attachment "D" which is made part of this Order.

E. Monitoring and Reporting

1. Pursuant to the California Water Code, section 13267, the Discharger must comply with Revised Monitoring and Reporting Program R6V-2007- (Tentative) as specified by the Executive Officer which is made a part of this Order. Reports requested under the Monitoring and Reporting Program are being required to monitor the effects on water quality from known or suspected discharges of waste to waters of the State as a result of releases of treated wastewater or treated wastewater regulated by this Order.

2. The Discharger must comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made a part of the Monitoring and Reporting Program.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on August 29, 2007.

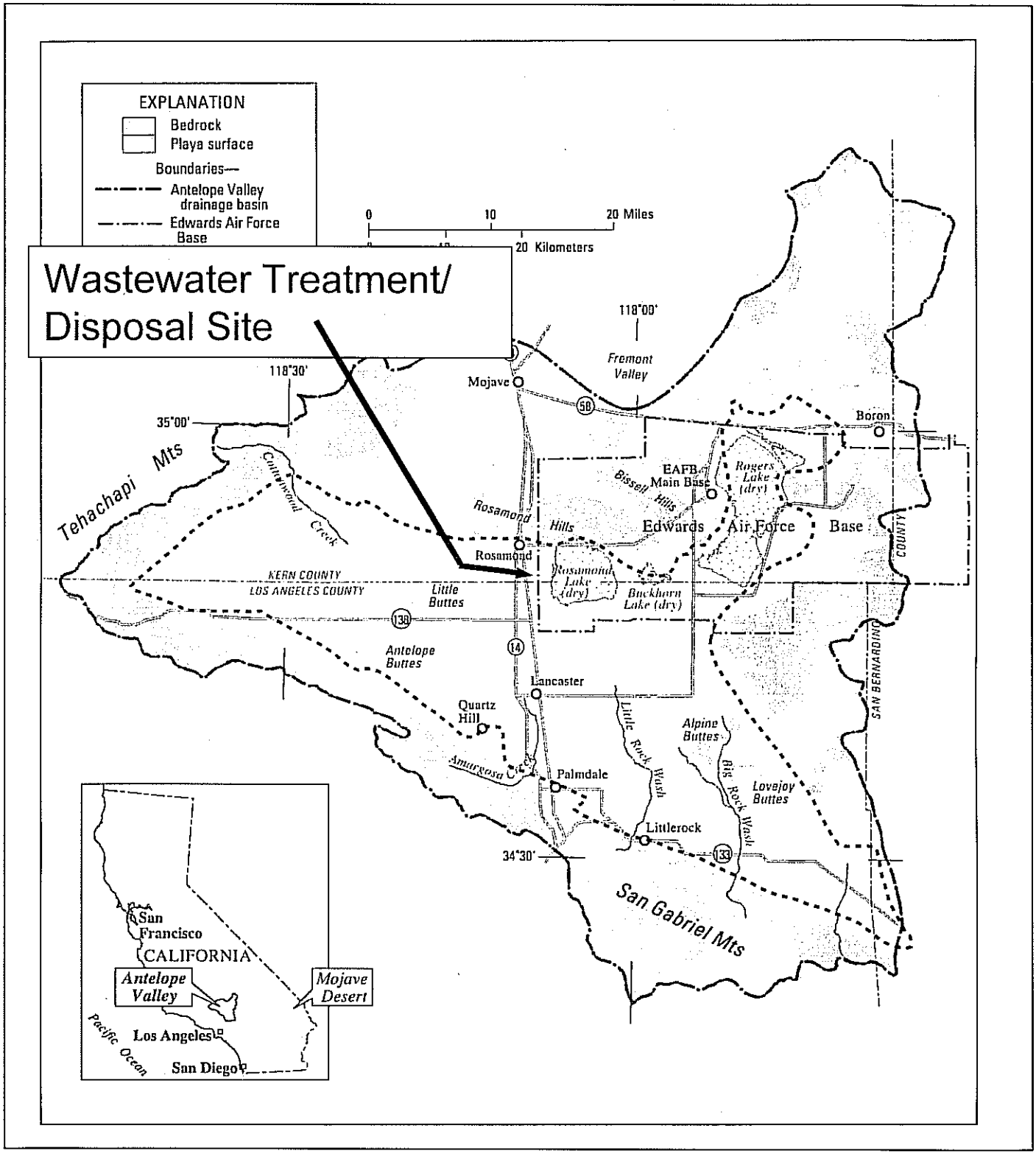
_____

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments:
A. General Location Map
B. General Facilities Locations
C. References
D. Standard Provisions for Waste Discharge Requirements

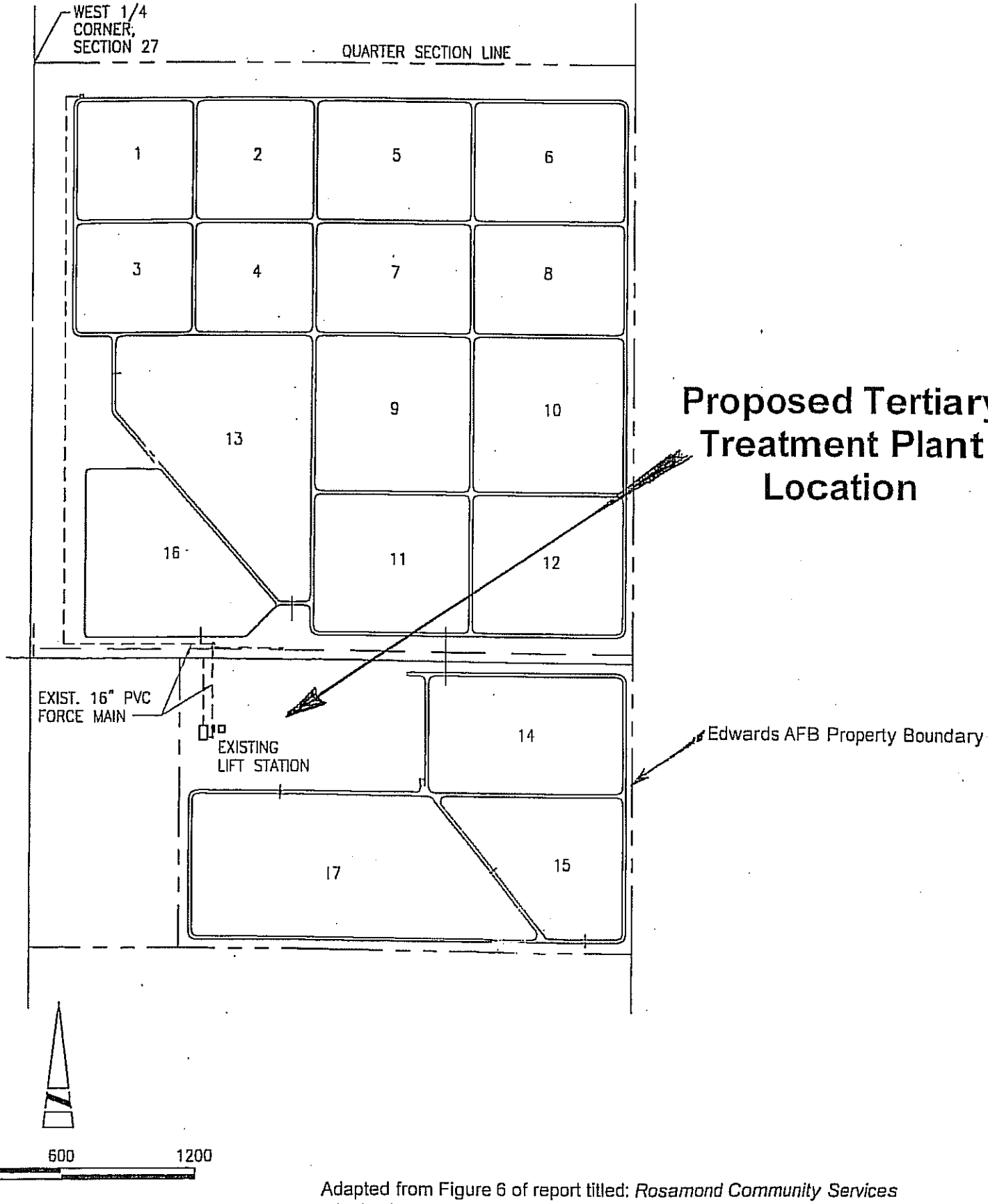
ATTACHMENT A

General Location Map



Modified from Figure 1, *Simulation of Groundwater Flow and Land Subsidence, Antelope Valley Ground-Water Basin*, USGS, 2003

Attachment B
Rosamond Community Services District
Wastewater Treatment and Disposal Site



Adapted from Figure 6 of report titled: *Rosamond Community Services District, Wastewater Treatment Plant Expansion Report of Waste Discharge*, Boyle Engineering Corporation, February 2003.

Attachment C
References - Rosamond CSD

1. California Department of Health Services, 2003, Letter acknowledging receipt of Title 22 report, and describing CDHS billing process and authority, Apr 2. (*CDHS, 2003, Apr 2*)

2. California Department of Health Services, 2003, Letter commenting on February 2003 Title 22 report, Apr 9. (*CDHS, 2003, Apr 9*)

3. California Regional Water Quality Control Board, Lahontan Region, 2006, Letter to Rosamond CSD commenting on Notice of Completion and Environmental Document Transmittal Form dated March 2, 2006.

4. California Department of Water Resources, 1968, Groundwater and Wastewater Quality Study, Antelope Valley, Los Angeles and Kern Counties, March. (*CDWR, 1968*)

5. California Regional Water Quality Control Board, Lahontan Region, 2003, Letter to Rosamond CSD notifying the CSD that its March 13, 2003 Report of Waste Discharge is incomplete and requesting additional information, April 18.

6. Los Angeles County Waterworks District No. 40, 2005, *Antelope Valley Recycled Water Project, Draft Facilities Planning Report,* prepared by Kennedy/Jenks Consultants, September 19. (*LAWWD40, 2005, Sep.*)

7. Rosamond Community Services District, 2006, Notice of Completion and Environmental Document Transmittal Form (SCH#1999101037) circulated for review and comment by State Clearinghouse on March 2, 2006. Enclosed items included an Environmental Checklist Form with five pages of attachments completed September 28, 1999.

8. Rosamond Community Services District, 2003, Wastewater Treatment Plant Expansion Title 22 Report, Prepared by Boyle Engineering Corporation, February.

9. Rosamond Community Services District, 2003, Wastewater Treatment Plant Expansion Report of Waste Discharge, Prepared by Boyle Engineering Corporation, February.

10. Rosamond Community Services District, 2003, Application/Report of Waste Discharge (Form 200), Signed by Sherry L. DeLano, March 13.

11. U.S. Geological Service, 2003, Simulation of Ground-Water Flow and Land Subsidence, Antelope Valley Groundwater Basin, Jan. (*USGS, 2003*)

12. U.S. Geological Service, 1987, Geohydrology of the Antelope Valley Area California and Design for a Groundwater Quality Monitoring Network (*USGS, 1987*)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

a. to enter upon premises in which an effluent source is located or in which any required records are kept;

b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);

c. to inspect monitoring equipment or records; and

d. to sample any discharge.

2. Reporting Requirements

a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.

b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.

d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation.

f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM
R6V-2007-(TENTATIVE)
WDID 6B150112001

FOR

ROSAMOND COMMUNITY SERVICES DISTRICT
DOMESTIC WASTEWATER TREATMENT PLANT

Kern County

I. MONITORING

A. Flow Monitoring

The following data must be recorded in a permanent logbook and the information submitted according to the frequency listed:

1. The total volume, in million gallons (MG), of effluent flow from the tertiary treatment plant for each day and month.

2. The calculated average flow rate, in million gallons per day (MGD) of effluent flow from the tertiary treatment plant calculated for each month.

3. The total volume, in million gallons (MG), of flow to the oxidation/evaporation ponds for each day and month.

4. The calculated average flow rate, in million gallons per day (MGD) of flow to the oxidation/evaporation ponds for each month.

5. The freeboard (the vertical distance between the top of the water level and the lowest point of a dike or overflow structure) must be monitored and recorded weekly, and reported in the monitoring report.

B. Influent Monitoring

Influent samples taken prior to the tertiary treatment plant and oxidation/evaporation ponds must be analyzed to determine the magnitude of the parameters listed in the attached Table 1.

C. Effluent Monitoring (Disinfected Tertiary-Treated Wastewater)

Samples of disinfected tertiary-treated wastewater must be collected from the tertiary treatment plant and analyzed to determine the magnitude of the following parameters and the additional parameters listed in the attached Table 1:

Parameter	Units	Type	Minimum Frequency
Flow	MGD	Flow Meter And Recorder	Continuous
Turbidity[1]	NTU	Turbidity Meter And Recorder	Continuous
Total coliform bacteria	MPN/100ml	Grab Sample	Daily
Dissolved Oxygen	mg/L	Grab	Weekly
Temperature	°C	Grab	Weekly

D. Groundwater Monitoring

The Discharger must collect samples from the four monitoring wells and analyze the samples to determine the magnitude of the parameters listed in the attached Table 2 in accordance with the frequency in that table.

Field parameters must be determined in all monitoring wells each time they are sampled to determine the following.

Parameters	Units
Static water depth	Feet below ground surface
Electrical conductivity	uS/cm
pH	pH units
Temperature	Degrees C
Dissolved Oxygen	mg/L
Turbidity	NTU
Color	Visual

The field parameters from each well must be reported in a separate table.

[1] For each 24-hour period, record and report the average turbidity, amount of time (minutes) the turbidity exceeded five (5) NTUs (if any), and the maximum turbidity.

E. Data Presentation for Compliance Determinations

Annual monitoring reports must contain:

1. An 11" x 17" copy of a site plan showing authorized disposal/recycling sites, groundwater monitoring wells, elevation of groundwater table and land surface at each well and groundwater equipotential lines.

2. Graphs (groundwater table elevation versus time) showing long-term trends of groundwater table elevations for each groundwater monitoring wells

3. Graphs (concentration versus time) showing long-term trends in concentrations of the following constituents in each groundwater monitoring well: TDS and Nitrate.

4. Graphs (concentration versus time) showing long-term trends in concentrations of the following constituents in the influent: biochemical oxygen demand (BOD), Nitrate, Kjeldahl Nitrogen, Ammonia and TDS.

5. Graphs (concentration versus time) showing long-term trends in concentrations of the following constituents in the tertiary treatment plant effluent: biochemical oxygen demand (BOD), Nitrate, Kjeldahl Nitrogen, Ammonia and TDS.

F. Biosolids Monitoring

The following must be recorded monthly and reported in the quarterly monitoring reports:

1. Total quantity of biosolids generated during the monitoring period.

2. Date and quantity of biosolids removed off site, location of use, recipient (including name and address) and biosolids reuse or disposal method. The type of crop grown, if biosolids are directly land applied at an offsite location,

1. Cumulative total quantity of biosolids currently stored on site including the quantity of biosolids added during this monitoring period.

The Discharger must include in each monitoring report the amount and type of all grit and screenings hauled off site for disposal or recycle. The person or company doing the hauling and the legal point of disposal or recycle must also be recorded.

G. Operation and Maintenance Monitoring

A brief summary of any operational problems and maintenance activities must be submitted to the Water Board with each quarterly monitoring report.

This summary must discuss:

1. Any major modifications or additions to the wastewater conveyance system, treatment facilities, or disposal/water recycling facilities.

2. Any major maintenance conducted on the wastewater conveyance system, treatment facilities, or disposal/water recycling facilities.

3. Any major problems occurring in the wastewater conveyance system, treatment facilities, or disposal/water recycling facilities.

4. The calibration of any wastewater flow measuring devices.

H. Laboratory Analyses

1. General

Sample results greater than or equal to the reported Minimum Level (ML) must be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample). Sample results less than the reported ML, but greater than or equal to the laboratory's Method Detection Limit (MDL), must be reported as "Detected , but Not Quantified," or DNQ. The estimated chemical concentration of the sample must also be reported. For the purposes of data collection, the laboratory must write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy, (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

2. Chromium

Use appropriate USEPA approved methods that will quantify concentrations down to 0.0025 mg/l for hexavalent chromium and 0.05 mg/l for total chromium.

II. REPORTING

A. General Provisions and Reports

1. The Discharger must comply with the "General Provisions for Monitoring and Reporting," (GPMR - Attachment "B") dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.

2. The Discharger must submit to the Lahontan Water Board by **November 2, 2007** a report including:

   a. A completed State of California, Well Completion Report (*Form# DWR 188 REV. 11-97*) for each of the four existing groundwater monitoring wells as required by California Water Code section 13800. If a Well Completion Report is currently not available, the Discharger must complete a Form for the well using information on record and results of recent field surveys. The source of the information must be referenced on the Form. A copy of the completed forms must be provided to the California Department of Water Resources as required by California Water Code section 13751 and County of Kern, which permits and enforces its local water well standards.

   b. Demonstration that each well complies with local and State water well standards, including compliance with standards for "Minimum Depth of Annular Seal" and separation from surface impoundments containing domestic wastewater.

B. Submittal Periods

The Discharger must submit monitoring reports according to the following schedule:

1. Beginning on **November 1, 2007**, quarterly monitoring reports must be submitted to the Water Board by the 1st day of the second month following each quarterly monitoring period. Data that are required on a frequency longer than one quarter will be incorporated into the quarterly report that coincides with the period for which the analyses are required.

2. Beginning on **March 30, 2008**, annual monitoring reports must be submitted to the Regional Board by March 30th of the year following each annual (calendar year) monitoring period.

Each annual monitoring report must include but not be limited to: (a) a summary of data as described above in section I.E, (b) evaluation and summary of the compliance status, and (c) the names and grades of all the certified operators.

Ordered by: _____ Dated: August 29, 2007

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments:
A. Tables 1 and 2
B. General Provisions for Monitoring and Reporting

CS/rp BO2007(Rosamond CSD) Rosamond MRP tent

Table No. 1
Influent and Tertiary Effluent

Parameter	Sampling Frequency (Influent)	Sampling Frequency (Effluent)
pH	Q	M
Biochemical Oxygen Demand (BOD)	Q	M
Total Organic Carbon	Q	M
Methylene Blue Active Substances	Q	Q
Kjeldahl Nitrogen	Q	M
Nitrate Nitrogen	Q	M
Nitrite Nitrogen	Q	M
Ammonia Nitrogen	Q	M
Chloride	Y	Q
Sodium	Y	Q
Sulfate	Y	Q
Calcium	Y	Q
Magnesium	Y	Q
Total Dissolved Solids	Y	Q
Total Petroleum Hydrocarbons	Y	Y
Total chromium	Y	Y
Hexavalent chromium	Y	Y
Total Cyanides	Y	Y
Total Phenols	Y	Y
Volatile Organics	Y	Y
Semivolatile Organics	Y	Y
Heavy Metals	Y	Y
Methyl Tertiary Butyl Ether	Y	Y

W=Weekly, M=Monthly, Y = Annually, S = Semiannually and Q = Quarterly

Table No. 2
Groundwater Monitoring Wells

Parameter	Sampling Frequency (Groundwater Monitoring Wells)
pH	Q
Total Organic Carbon	Q
Methylene Blue Active Substances	Q
Kjeldahl Nitrogen	Q
Nitrate Nitrogen	Q
Nitrite Nitrogen	Q
Ammonia Nitrogen	Q
Chloride	Q
Sodium	Q
Sulfate	Q
Calcium	Q
Magnesium	Q
Total Dissolved Solids	Q
Haloacetic acids (HAA5)	Y
Total Trihalomethanes (THMs)	Y
N-Nitrosodimethylamine (NDMA)	Y
Total Petroleum Hydrocarbons	Y
Total chromium	Y
Hexavalent chromium	Y
Total Cyanides	Y
Total Phenols	Y
Volatile Organics	Y
Semivolatile Organics	Y
Heavy Metals	Y
Methyl Tertiary Butyl Ether	Y

Y = Annually, S = Semiannually and Q = Quarterly

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

i. Standard Methods for the Examination of Water and Wastewater

ii. Methods for Chemical Analysis of Water and Wastes, EPA

b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship,by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.

x:PROVISONS WDRS

file: general pro mrp